UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/972,125	10/05/2001	Michael A. D'Annunzio	7784-000194	3670

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EXAMINER
CHOUDHURY, AZIZUL Q

ART UNIT	PAPER NUMBER
2145	

DATE MAILED: 11/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/972,125	D'ANNUNZIO ET AL.
	Examiner	Art Unit
	Azizul Choudhury	2145

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>05 October 2001</u>.

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-13</u> is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-13</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on <u>05 October 2001</u> is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a) ☐ All b) ☐ Some * c) ☐ None of:

   1. ☐ Certified copies of the priority documents have been received.

   2. ☐ Certified copies of the priority documents have been received in Application No. _____.

   3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>8/25/03, 1/31/02</u>.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____ .

Detailed Action

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Li et al

(US Pat No: 5,473,599), hereafter referred to as Li.

1. With regards to claim 1, Li teaches a method for re-configuring communications

between a host, a first router and a second router on a network in the event of a

failure of the first router, wherein the host, first router and second router are all

operating on an Internet Control Message Protocol (ICMP) Router Discovery

Protocol (IRDP), the method comprising the steps of: designating said first router

as a primary router by using said IRDP to assign said first router a first

preference value which said first router includes in advertisements it sends out to

said host on said network; designating said second router as a backup router by

using said IRDP to assign said second router a second preference value which

said backup router includes in advertisements it sends out to said host on said

network; causing said host to transmit data over said network to said primary

router subsequent to receiving an advertisement from said primary router; and in

the event said host does not receive an advertisement from said primary router

within a predetermined time period, causing said host to recognize an

advertisement from said backup router and to treat said backup router as a

primary router, and to transmit data to said backup router, whereby said backup

router routes said data received from said host over said network to a desired

destination

(Li discloses a design for standby routers (column 2, lines 16-30, Li). A number

of routers standby while the main router performs its tasks. All the routers send

out "hello" messages (equivalent to the claimed advertisements) (column 2, line

65 – column 3, line 14, Li). The routers also have priorities (equivalent to the

claimed preference values) (column 2, lines 44-64, Li). When it is determined

that a router needs to be replaced, either for backup purposes (column 3, lines

14-39, Li), priority purposes or lack of "hello" messages (advertisements) (Figure

3, Li), another router is selected to take on the role as primary router. Finally, the

design allows for the use of ICMP with router discovery as claimed as well

(column 1, line 26-28, Li)).

2. With regards to claim 2, Li teaches the method wherein a plurality of said backup

routers are provided, each of said backup routers being in communication with

said host on said network and each being assigned a preference value; and

further comprising the step of said host using said backup router that has the

highest preference value when said primary router fails (Li's design allows for a

plurality of standby (backup) routers (column 2, lines 16-30, Li). The routers

have priority values (equivalent to the claimed preference values) (column 2,

lines 44-64, Li). When a router fails, a new primary router is selected based on

the priority values).

3. With regards to claim 3, Li teaches the method further comprising the step

blocking the reception of Type 9 and Type 10 ICMP packets transmitted on said

network to said host by any router operating on said network (Type 9 and 10

ICMP packets are broadcast/advertisement packets, called "hello" messages in

this design. Claim 15 discloses how ICMP redirect packets are blocked from

being sent to the host as claimed).

4. With regards to claim 4, Li teaches the method further comprising the step of

configuring said primary router to receive data packets from a plurality of

independent computer devices (Since a router takes over the role of another

router in Li's design, it is inherent that the "new" primary router is configured to

receive data as claimed).

5. With regards to claim 5, Li teaches a method for re-configuring communications

between a host, a first router and a second router on a network in the event of a

failure of the first router, wherein the host, first router and second router are all

operating on an Internet Control Message Protocol (ICMP) Router Discovery

Protocol (IRDP), the method comprising the steps of: configuring said host for

communication with a plurality of personal computing devices; causing said host

to recognize a first one of said routers which transmits an advertisement which

includes an address having the highest preference value of all of said routers as

a default router; in the event said default router ceases transmitting

advertisements on said network for a given period of time, causing said host to

remove said first one of said routers as said default router from a routing table

maintained by said host; causing said host to recognize said router having the

next highest preference value in its advertisement, as a secondary default router,

and designating said secondary default router as a new default router in said

routing table of said host; and in the event said secondary default router ceases

transmitting advertisements for a given period of time while said first one of said

routers has also ceased transmitting advertisements, then causing said host to

recognize said router transmitting advertisements having the next highest

preference value to that of the secondary router as a tertiary router, and

designating said tertiary router as said default router in said router table of said

host

(Li discloses a design for standby routers (column 2, lines 16-30, Li). A number

of routers standby while the main router performs its tasks. All the routers send

out "hello" messages (equivalent to the claimed advertisements) (column 2, line

65 – column 3, line 14, Li). The routers also have priorities (equivalent to the

claimed preference values) (column 2, lines 44-64, Li). When it is determined

that a router needs to be replaced, either for backup purposes (column 3, lines

14-39, Li), priority purposes or lack of "hello" messages (advertisements) (Figure

3, Li), another router is selected to take on the role as primary router. This is

done, as many times as needed until there are no more routers to rely on. In

addition, all networks using routers make use of routing tables. Finally, the

design allows for the use of ICMP with router discovery as claimed as well

(column 1, line 26-28, Li)).

6. With regards to claim 6, Li teaches the method further comprising the step of

using at least one packet filter with said host to allow said host to accept only

advertisements transmitted on said network of predetermined routers known to

be operating on said network (Claim 15 of Li's design states how ICMP redirect

packets are block from being sent to the host. Hence the claimed filtering means

are present within Li's design).

7. With regards to claim 9, Li teaches the method wherein the step of using at least

one packet filter comprises the step of blocking the receipt by said host of any

advertisement transmitted to it on said network which comprises one of a Type 9

and a Type 10 packet to insure against the diversion of data packets transmitted

from said host to an authorized router transmitting advertisements on said

network (Claim 15 of Li's design states how ICMP redirect packets are block from

being sent to the host. Hence the claimed filtering means are present within Li's

design).

8. With regards to claim 8, Li teaches a method for re-configuring communications

between a host, a first router and a second router on a network in the event of a

failure of the first router, wherein the host, first router and second router are all

operating on an Internet Control Message Protocol (ICMP) Router Discovery

Protocol (IRDP), the method comprising the steps of: configuring said host for

communication with a plurality of personal computing devices; causing said host

to recognize a first one of said routers which transmits an advertisement which

includes an address having the highest preference value of all of said routers as

a default router; in the event said default router ceases transmitting

advertisements on said network for a given period of time, causing said host to

remove said first one of said routers as said default router from a routing table

maintained by said host; causing said host to recognize said router having the

next highest preference value in its advertisement, as a secondary default router,

and designating said secondary default router as a new default router in said

routing table of said host; and in the event said secondary default router ceases

transmitting advertisements for a given period of time while said first one of said

routers has also ceased transmitting advertisements, then causing said host to

recognize said router transmitting advertisements having the next highest

preference value to that of the secondary router as a tertiary router, and

designating said tertiary router as said default router in said router table of said

host; and using at least one packet filter on said host to restrict the

advertisements said host can receive on said network

(Li discloses a design for standby routers (column 2, lines 16-30, Li). A number

of routers standby while the main router performs its tasks. All the routers send

out "hello" messages (equivalent to the claimed advertisements) (column 2, line

65 – column 3, line 14, Li). The routers also have priorities (equivalent to the

claimed preference values) (column 2, lines 44-64, Li). When it is determined

that a router needs to be replaced, either for backup purposes (column 3, lines

14-39, Li), priority purposes or lack of "hello" messages (advertisements) (Figure

3, Li), another router is selected to take on the role as primary router. This is

done, as many times as needed until there are no more routers to rely on. In

addition, all networks using routers make use of routing tables. Plus, the design

allows for the use of ICMP with router discovery as claimed as well (column 1,

line 26-28, Li). Finally, claim 15 of Li's design states how ICMP redirect packets

are block from being sent to the host. Hence the claimed filtering means are

present within Li's design).

9. With regards to claim 9, Li teaches the method wherein the step of using at least

one packet filter comprises the step of blocking the reception by said host of all

Type 9 data packets transmitted to it on said network (Type 9 and 10 ICMP

packets are broadcast/advertisement packets, called "hello" messages in this

design. Claim 15 discloses how ICMP redirect packets are blocked from being

sent to the host as claimed).

10. With regards to claim 10, Li teaches the method wherein the step of using at

least one packet filter comprises the step of blocking the reception by said host of

all Type 10 data packets transmitted to it on said network (Type 9 and 10 ICMP

packets are broadcast/advertisement packets, called "hello" messages in this

design. Claim 15 discloses how ICMP redirect packets are blocked from being

sent to the host as claimed).

11. With regards to claim 11, Li teaches a method for re-configuring communications

between a host, a first router and a second router on a network in the event of a

failure of the first router, wherein the host, first router and second router are all

operating on an Internet Control Message Protocol (ICMP) Router Discovery

Protocol (IRDP), the method comprising the steps of: designating said first router

as a primary router by using said IRDP to assign said first router a first

preference value which said first router includes in advertisements it sends out to

said host on said network; designating said second router as a backup router by

using said IRDP to assign said second router a second preference value which

said backup router includes in advertisements it sends out to said host on said

network; causing said host to transmit data over said network to said primary

router subsequent to receiving an advertisement from said primary router; and in

the event said host does not receive an advertisement from said primary router

within a predetermined time period, causing said host to recognize an

advertisement from said backup router and to treat said backup router as a

primary router, and to transmit data to said backup router, whereby said backup

router routes said data received from said host over said network to a desired

destination; and using a filter on said host to restrict the types of advertisements

said host may receive to thereby eliminate the possibility of an unauthorized

router that has gained access to said network transmitting advertisements that

cause said host to recognize said unauthorized router as said default router

(Li discloses a design for standby routers (column 2, lines 16-30, Li). A number

of routers standby while the main router performs its tasks. All the routers send

out "hello" messages (equivalent to the claimed advertisements) (column 2, line

65 – column 3, line 14, Li). The routers also have priorities (equivalent to the

claimed preference values) (column 2, lines 44-64, Li). When it is determined

that a router needs to be replaced, either for backup purposes (column 3, lines

14-39, Li), priority purposes or lack of "hello" messages (advertisements) (Figure

3, Li), another router is selected to take on the role as primary router. This is

done, as many times as needed until there are no more routers to rely on. In

addition, all networks using routers make use of routing tables. Plus, the design

allows for the use of ICMP with router discovery as claimed as well (column 1,

line 26-28, Li). Finally, claim 15 of Li's design states how ICMP redirect packets

are block from being sent to the host. Hence the claimed filtering means are

present within Li's design).

12. With regards to claim 12, Li teaches the method wherein the step of using a filter

comprises blocking all Type 9 advertisement packets transmitted on said network

(Type 9 and 10 ICMP packets are broadcast/advertisement packets, called

"hello" messages in this design. Claim 15 discloses how ICMP redirect packets

are blocked from being sent to the host as claimed).

13. With regards to claim 13, Li teaches the method wherein the step of using a filter

comprises blocking all Type 10 advertisement packets transmitted on said

network (Type 9 and 10 ICMP packets are broadcast/advertisement packets,

called "hello" messages in this design. Claim 15 discloses how ICMP redirect

packets are blocked from being sent to the host as claimed).

Remarks

After review of the claimed design along with its drawings and specifications, it is

believed by the examiner that the prior art presented here, features the traits of the

claimed invention. The applicant and their representative are encouraged to review

the prior art fully and also take into account the spirit of the design of the prior art

when making their amendments. As always, if there are any concerns or questions, the examiner is available at the contact information provided below.
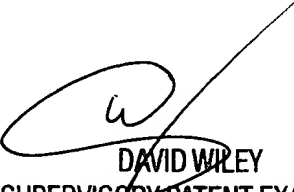
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Azizul Choudhury whose telephone number is (571)272-3909. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley can be reached on (571)272-3923. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AC

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